

REMARKS

Reconsideration of this application and the rejection of claims 1-12 and 14 are respectfully requested. Applicant has attempted to address every objection and ground for rejection in the Final Office Action dated July 11, 2005 (Paper No. 20050705) and believes the application is now in condition for allowance, or in better form for appeal. The claims have been amended to more clearly describe the present invention. The Specification has been amended to correct typographical and grammatical errors. No new matter has been added to the application.

Applicant acknowledges the allowability of claims 15 and 16. Applicant further acknowledges that claim 13 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, because of the amendments to claim 7, from which claim 13 indirectly depends, Applicant submits that claim 13 is in allowable form.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sorenson (U.S. Pat. No. 3,938,543). Sorenson discloses a relay valve 610 including a valve body 611 having a spool 612 axially slidable in a bore 613 closed by ends 614, 615. A variable volume chamber 630 in a suitable housing is located opposite the end 614, and includes a vertically moveable upper wall 631 having an annular O-ring seal and a manual screw 632 for adjustment. (Col. 9, ll. 20-30; FIG. 8).

In contrast, as amended, claim 1 now recites, among other things, “means for manually adjusting the internal volume of said metering chamber, said means including...a sleeve configured for mounting in operational relationship to said housing and to reciprocally accommodate said plunger, said means for manually adjusting being accessible externally of said housing for enabling a user to adjust tool performance during operation to accommodate environmental variations.” Applicant submits that as amended, claim 1 is patentably distinct from Sorenson, because among other things, Sorenson does not include a sleeve. Accordingly, Applicant respectfully traverses the rejection of claims 1-3 as being anticipated by Sorenson.

Claims 1-12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Peters (U.S. Pat. No. 5,954,029). Peters discloses a fuel injector including an injector body 10 having a central bore 12. Within the central bore 12 is a plunger assembly 24 having an upper plunger section 26 and a lower plunger section 28, where the lower plunger section is mounted for reciprocal movement in a manner to define a variable volume chamber 32 and a volume metering chamber 34. (Col. 4, ll. 21-32; FIGs. 1A-1C).

The Examiner admits that Peters fails to disclose the limitation of a sleeve, and further recognizes that Peters fails to disclose or suggest the limitations of manually adjustable means, specific mounting means, and the operational direction of the plunger, as recited in claims 1-12 and 14. However, the Examiner contends that it would have been obvious to one skilled in the art to optimize or

select the suitable sleeve, mounting means, and the operational direction of the plunger. Further, the Examiner contends that it would be an obvious matter of mechanical design to convert from an automatic device to a manual device.

Applicant respectfully disagrees with the Examiner's contentions. First, Applicant submits that the Examiner has failed to provide a *prima facie* case of obviousness for the above-identified rejection. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. (MPEP § 2143).

Applicant submits that the Examiner has failed to provide a specific reference point in Peters to support his contention that the proposed modifications would be obvious to one of ordinary skill in the art. It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. (MPEP § 2144.03). Accordingly, Applicant submits that because the Examiner has failed to cite evidence supporting his contention that the suggested modifications would be obvious to one skilled in the art, a *prima facie* case of obviousness has not been established.

Further, Applicant submits that Peters does not recognize the problem stated in the present application. Specifically, Peters does not recognize the problem of overly rich fuel/air mixtures in the combustion chambers of combustion-powered tools at relatively higher elevations or altitudes. Rather, the object in Peters is to provide constant, automatic injector timing while varying the metered quantity of fuel. (Col. 2, ll. 12-16). Accordingly, claims 1 and 7 have been amended to recite, among other things, a variable volume metering chamber where the means for adjusting is “accessible externally of said housing for enabling a user to adjust tool performance during operation to accommodate environmental variations.” Applicant submits that as amended, claims 1 and 7 and all claims indirectly or directly dependent thereon are in allowable form.

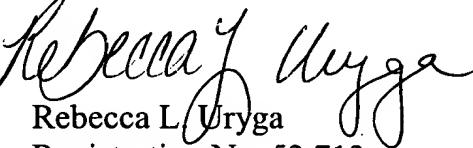
Claims 4-12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sorenson. The arguments made above for Sorenson are reasserted here. Applicant submits that in view of the amendments and remarks made above with respect to claims 1 and 7, from which claims 4-12 and 14 either directly or indirectly depend, claims 1 and 7 are in allowable form. Accordingly, Applicant submits that claims 4-12 and 14 are also in allowable form, and therefore, Applicant respectfully traverses the § 103(a) rejection of claims 4-12 and 14 based on Sorenson.

In view of the above amendments, the application is respectfully submitted to be in allowable form, or in better form for appeal. Allowance of the rejected claims is respectfully requested. Should the Examiner discover there are

remaining issues which may be resolved by a telephone interview, he is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 
Rebecca L. Uryga
Registration No. 53,713

Customer No. 24978

August 29, 2005
Suite 2500
300 S. Wacker Drive
Chicago, Illinois 60606-6501
Telephone: (312) 360-0080
Facsimile: (312) 360-9315